

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claim 1 (currently amended): A method of case-hardening a stainless article by ~~means~~ use of gas including carbon and/or nitrogen, i.e., gas carburising and/or gas nitriding, whereby carbon and/or nitrogen atoms ~~diffuse~~ are diffused through ~~the~~ a surface of the article, ~~the case hardening is carried out below a temperature at which carbides and/or nitrides are produced,~~ ~~the method including~~ said method comprising:

activating the surface of the ~~article~~, applying article;

applying a top layer on the activated surface to prevent repassivation, the top layer ~~includes metal which is catalytic to the decomposition of the gas, characterized in that the metal is~~ including one or more of the metals Ni, Ru, Co or Pd, which are catalytic to decomposition of the gas; and

carrying out the case hardening below a temperature at which carbides and/or nitrides are produced.

Claim 2 (previously amended): A method according to claim 1, wherein the case-hardening is a nitriding process which is carried out with a nitrogen-containing gas below a temperature at which nitrides are produced.

Claim 3 (previously amended): A method according to claim 1, wherein the case-hardening is carburizing with a carbon-containing gas.

Claim 4 (previously amended): A method according to claim 3, wherein carburizing is carried out below a temperature at which carbides are produced.

Claim 5 (previously amended): A method according to claim 1, wherein the top layer is a nickel layer.

Claim 6 (previously amended): A method according to claim 5, wherein the maximum average thickness of the nickel layers is 300 nanometers.

Claim 7 (previously amended): A method according to claim 6, wherein the nickel layer is applied by a chemical or electrolytical plating.

Claim 8 (previously amended): A method according to claim 1, wherein the article is of austenitic stainless steel.

Claim 9 (previously amended): A method according to claim 1, wherein the catalytic metal layer is only applied to part of the surface of the stainless steel article.

Claim 10 (previously amended): A method according to claim 2, wherein the temperature is below 450 C.

Claim 11 (previously presented): A method according to claim 3, wherein the gas is CO.

Claim 12 (previously presented): A method according to claim 4, wherein the temperature is below 550 C.

Claim 13 (previously presented): A method according to claim 4, wherein the temperature is below 510 C.

Claim 14 (previously presented): A method according to claim 6, wherein the thickness is 200 nanometers.

Claim 15 (previously presented): A method according to claim 7, wherein the nickel layer is applied by a Wood's nickel bath.

Claim 16 (previously presented): A method according to claim 2, wherein the top layer is a nickel layer.

Claim 17 (previously presented): A method according to claim 3, wherein the top layer is a nickel layer.

Claim 18 (previously presented): A method according to claim 6, wherein the nickel layer is applied by a chemical or electrolytical plating process.

Claim 19 (previously presented): A method according to claim 2, wherein the article is of austenitic stainless steel.

Claim 20 (previously presented): A method according to claim 2, wherein the catalytic metal layer is only applied to part of the surface of the stainless steel article.